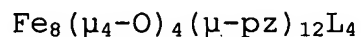


In the Claims

1. (previously presented) A Fe(III) complex having paramagnetic and electron transfer properties comprising an iron cluster in a chemically inert shell, wherein said iron cluster comprises a Fe₄O₄ cubane core which is stable over five oxidation states and wherein said chemically inert shell comprises four iron atoms and twelve bridging pyrazolato groups.

2. (previously presented) The Fe (III) complex of claim 1, wherein said complex comprises a contrast agent.

3. (previously presented) A paramagnetic compound having the formula:



where the portion of the compound identified as $\mu_4\text{-O}$ is a quadruply bridging oxygen atom and $\mu\text{-pz}$ is a bridging pyrazole ring, and the portion of the compound identified as L is a ligand.

4. (previously presented) The paramagnetic compound of claim 3, wherein said compound comprises a contrast agent.

5. (previously presented) The paramagnetic compound of claim 3, wherein said compound has electron transfer properties.

6. (previously presented) The paramagnetic compound of claim 3, wherein said bridging pyrazole rings each comprise a halogen or pseudo-halogen attached at the 4 position of the bridging pyrazole ring wherein said halogen or pseudo-halogen is selected from the group consisting of F, Cl, Br, I and CN.

7. (previously presented) The paramagnetic compound of claim 3, wherein said bridging pyrazole rings each comprise an organic substituent attached at the 4 position of the bridging pyrazole rings wherein said organic substituent is selected from group consisting of C_nH_{2n+1} , C_nH_{2n-1} , C_nH_{2n-3} , $C_nH_{2n}X$, $C_nH_{2n-2}X$, $C_nH_{2n-4}X$ where n is less than 40 and where X is selected from the group consisting of F, Cl, Br, I, CN, OH, NH_2 , CHO.

8. (previously presented) The paramagnetic compound of claim 7, wherein n is less than 20.

9. (previously presented) The paramagnetic compound of claim 3, wherein said bridging pyrazole rings each comprise an aryl group attached at the 4 position of the pyrazole ring.

10. (previously presented) The paramagnetic compound of claim 3, wherein said ligand is selected from the group consisting of F, Cl, Br, SCN, OCN, OPh, Ph, and py, where Ph is a phenyl group and py is a pyridine group.

11. (previously presented) A Fe(III) complex having paramagnetic and electron transfer properties comprising a metal cluster in a chemically inert shell, wherein said metal cluster forms a cubane core having the formula Fe_4O_4 and is stable over five oxidation states.

12. (previously presented) The Fe(III) complex of claim 11, wherein said chemically inert shell comprises four iron atoms, twelve bridging pyrazolato groups and four ligands.

13. (previously presented) The Fe(III) complex of claim 12, wherein said twelve bridging pyrazolato groups each comprise a halogen or pseudo-halogen attached at the 4 position of the bridging pyrazole rings wherein said

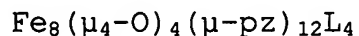
halogen or pseudo-halogen is selected from the group consisting of F, Cl, Br, I and CN.

14. (previously presented) The Fe(III) complex of claim 13, wherein said four ligands each comprise a terminal ligand selected from the group of F, Cl, Br, SCN, OCN, OPh, Ph, and py, where Ph is a phenyl group and py is a pyridine group.

15. (previously presented) The Fe(III) complex of claim 13, wherein said four ligands each comprise a bridging ligand selected from the group consisting of pyrazine and bipyridine.

16. (previously presented) The Fe(III) complex of claim 13, wherein said four ligands each comprise a metal.

17. (previously presented) The Fe(III) complex of claim 11, wherein the complex is given by the formula:



where the portion of the complex identified as $\mu_4\text{-O}$ is a quadruply bridging oxygen atom and $\mu\text{-pz}$ is a bridging

pyrazole ring, and the portion of the complex identified as L is a ligand.

18. (previously presented) The Fe(III) complex of claim 11, wherein said Fe(III) complex comprises a contrast agent.

19. (new) An octanuclear Fe(III) complex comprising an Fe_8O_4 skeleton supported by 12 peripheral bridging and 4 terminal ligands.

20. (new) The octanuclear Fe(III) complex of claim 19, wherein the octanuclear Fe(III) complex further comprises a contrast agent.